

(U.S. Patent No. 4,939,666, issued July 3, 1990), in the Office Action mailed on September 27,

The rejection of claims 23-28 under 35 U.S.C. 102(b) as being anticipated by Hardman

### ***Claim Rejections - 35 USC § 102***

2, 2002, canceling claims 1-29, and establishing the proper antecedent basis for claims 30-35.

mailed on September 27, 2002, is withdrawn in view of the Amendment received on December

for failing to particularly point out and distinctly claim the subject matter, in the Office Action

The rejection of claims 2-3 under 35 U.S.C. 112, second paragraph, as being indefinite

withdrawn in view of the Amendment received on December 2, 2002, canceling the claims.

Possession of the claimed invention, in the Office Action mailed on September 27, 2002 is

skilled in the relevant art that the inventor(s), at the time the application was filed, had

matter which was not described in the specification in such a way as to reasonably convey to one

The rejection of claims 19-23 under 35 U.S.C. 112, first paragraph, as containing subject

### ***Claim Rejections - 35 USC § 112***

December 2, 2002, canceling the claims.

Action mailed on September 27, 2002 is withdrawn in view of the Amendment received on

The rejection of claims 4-22 for being dependent on a canceled claim, in the Office

### ***Claim Objections***

### ***Rejections Withdrawn***

8).

This Office Action responds the Amendment received on December 2, 2002 (Paper No.

### **DETAILED ACTION**

Art Unit: 1637

cancelling the claims.

September 27, 2002 is withdrawn in view of the Amendment received on December 2, 2002, invention as that of claims 2-15 of prior U.S. Patent No. 6,188,955, in the Office Action mailed on The rejection of claims 6-10 and 12-17 under 35 U.S.C. 101 as claiming the same

#### ***Claim Rejections - 35 USC § 101 - Double Patenting***

received on December 2, 2002, cancelling the claims.  
Patent No. 6,269,312, mailed on September 27, 2002 is withdrawn in view of the Amendment obviousness-type double patenting as being unpatentable over claims 2, 6, 11, and 18-21 of U.S. The rejection of claims 2, 6, 11, and 19-22 under the judicially created doctrine of

on December 2, 2002, cancelling the claims.

Office Action mailed on September 27, 2002, is withdrawn in view of the Amendment received same invention as that of claims 2-27 and 38 of copending Application No. 09/837,886, in the The provisional rejection of claims 2-17 and 19-29 under 35 U.S.C. 101 as claiming the

#### ***Double Patenting***

withdrawn in view of the Amendment received on December 2, 2002, cancelling the claims.  
5,241,470, issued August 31, 1993), in the Office Action mailed on September 27, 2002 is Hardman (U.S. Patent No. 4,939,666, issued July 3, 1990) in view of Lee et al. (U.S. Patent No. The rejection of claims 24-29 under 35 U.S.C. 103(a) as being unpatentable over

#### ***Claim Rejections - 35 USC § 103***

claims.

2002 is withdrawn in view of the Amendment received on December 2, 2002, cancelling the

Art Unit: 1637

Application/Control Number: 09/827,960 Page 3

The following is a quotation of the first paragraph of 35 U.S.C. 112:

acid side chains. The base claim, however, lacks the concept of first and second sets of rotamers. Each residue position (which is variable), there exists rotamers of at least two different amino rotamers,” which lacks proper antecedent basis. The base claim 43 appears to indicate that for claims 44 and 45 are indefinite for reciting the term, “said first and second sets of regards as the invention.

for failing to particularly point out and distinctly claim the subject matter which applicant for specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

#### **Claim Rejections - 35 USC § 112 - Necessitated by Amendment**

§ 608.01(u). Accordingly, the claim 48 has not been further treated on the merits. Multiple dependent claim cannot depend from any other multiple dependent claim. See MPEP claim 48 is objected to under 37 CFR 1.75(c) as being in improper form because a claims 31-35 are objected to because they depend on a preceding claim.

#### **Claim Objections - Necessitated by Amendment**

is withdrawn in view of the Amendment received on December 2, 2002. claim 2 of prior U.S. Patent no. 6,269,312), in the Office Action mailed on September 27, 2002. The rejection of claim 18 under 35 U.S.C. 101 as claiming the same invention as that of

Art Unit: 1637

introduce explicit backbone flexibility" (pp. 10, lines 22-28).

systematically or randomly varied to alter the arrangement of the secondary structure elements to

supersecondary structure parameters. These parameters are assigned values that can be

relative positions of the secondary structural elements are defined by a set of parameters called

is reduced to a description of the spatial arrangement of its secondary structural elements. The

outlined below. In this embodiment, the representation of the starting protein backbone structure

,"In a preferred embodiment, the protein backbone structure is altered prior to the analysis

supersecondary structure. The specification discloses:

at least one structure parameter which is open to other structural parameters not pertaining to

altering at least one supersecondary structure parameter (page 10), but not the concept of altering

discloses "alters at least one structure parameter." The specification supports the concept of

step which is not supported by the original disclosure. Specifically, sub-step (a) of claims 37-39

supported by the original disclosure is as follows: Newly added claims 37-39 recites a method

introduce new matter into the disclosure of the invention. The added material which is not

introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall

The amendment filed on December 2, 2002 is objected to under 35 U.S.C. 132 because it

possession of the claimed invention. This is a new matter rejection.

skilled in the relevant art that the inventor(s), at the time the application was filed, had

matter which was not described in the specification in such a way as to reasonably convey to one

Claims 37-39 are rejected under 35 U.S.C. 112, first paragraph, as containing subject

contemplated by the inventor of carrying out this invention.

performs, or with which it is most nearly connected, to make and use the same and shall set forth the best mode and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it

The specification shall contain a written description of the invention, and of the manner and process of making

Art Unit: 1637

Page 5

Application/Control Number: 09/827,960

2/5/03

Young J. Kim

such papers must conform with the notice published in the Official Gazette, 1156 OG 61 (November 16, 1993) and 1157 OG 94 (December 28, 1993) (see 37 CFR 1.6(d)). NOTE: If applicant does submit a paper by FAX, the original copy should be retained by applicant or applicant's representative. NO DUPLICATE COPIES SHOULD BE SUBMITTED, so as to avoid the processing of duplicate papers in the Office. The Fax number is (703) 746-3172. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0196.

Art Unit: 1637

Page 7

Application/Control Number: 09/827,960

1)  Notice of References Cited (PTO-892)      4)  Interview Summary (PTO-413) Paper No(s).  
 2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)      5)  Notice of Informal Patent Application (PTO-152)  
 3)  Information Disclosure Statement(s) (PTO-1449) Paper No(s). 6)  Other:

## Attachment(s)

14)  Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 120 and/or 121.  
 a)  The translation of the foreign language provision in application has been received.  
 15)  Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
 \* See the attached detailed Office action for a list of the certified copies not received.  
 \* Application from the International Bureau (PCT Rule 17.2(a)).  
 3.  Copies of the certified copies of the priority documents have been received in this National Stage  
 2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_  
 1.  Certified copies of the priority documents have been received.  
 a)  All b)  Some c)  None of:

13)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

## Priority under 35 U.S.C. §§ 119 and 120

12)  The oath or declaration is objected to by the Examiner.  
 If approved, corrected drawings are required in reply to this Office action.  
 11)  The proposed drawing correction filed on \_\_\_\_\_ is: a)  approved b)  disapproved by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.  
 9)  The specification is objected to by the Examiner.

## Application Papers

8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.  
 7)  Claim(s) 31-35 and 48 is/are objected to.  
 6)  Claim(s) 37-39, 44 and 45 is/are rejected.  
 5)  Claim(s) 30, 36, 40-43, 46 and 47 is/are allowed.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

4)  Claim(s) 30-48 is/are pending in the application.

## Disposition of Claims

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.  
 2a)  This action is FINAL. 2b)  This action is non-final.

1)  Responsive to communication(s) filed on 02 December 2002.

## Status

Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).  
 If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.  
 After Six (6) MONTHS from the mailing date of this communication.  
 If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be timely filed.  
 Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any  
 - eamed patent term adjustment. See 37 CFR 1.704(b).  
 - Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any  
 - eamed patent term adjustment. See 37 CFR 1.704(b).

THE MAILING DATE OF THIS COMMUNICATION

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM

Period for Reply

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Applicant(s)	Application No.	Examiner	Office Action Summary
MAYO ET AL.	09/827,960	Young J. Kim	1637

1103942

Estimated: (415) 398-3249  
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 Date: 4/30/03

Filed under 37 CFR, § 1.34(a)  
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By:

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 Respectfully submitted,

Diane M. Treada, Reg. No. 47,244

Please appoint: Joyce L. Morrison, Reg. No. 31,902, and

captioned patent application.

Applicant hereby requests it's undersigned counsel, that the individuals named below be appointed Associate Powers of Attorney and are authorized to prosecute matters in the above-

SAC

Washington, D.C. 20231  
 Commissioner for Patents  
 U.S. Patent and Trademark Office

## ASSOCIATE POWER OF ATTORNEY

For: *Apparatus and Method for  
 Automated Protection Design*  
 Filed: April 4, 2001  
 Serial No. 09/827,960  
 Inventor: *Kim, Young J.*  
 Group No. 1637  
 In re application of  
 MAYO, et al.  
 Attorney Deposit: *Patent No. 468268-00013/A-65353-7/RTRMS/RMK*  
 Date: *Committal for Patent, Washington, D.C. 20231 on:  
 Friday, June 14, 2002 in an envelope addressed to: Attorney  
 Dreyer & Whitney LLP, 401 Battery Street, Seattle, Washington, 98101-3143.*

Please find below and/or attached an Office communication concerning this application or proceeding.

APPLICATION NO.	FILING DATE	FIRST NAME/INVENTOR	ATTORNEY DOCUMENT NO.	CONFIRMATION NO.
09-827,960	04-04-2001	Stephen L. Mayo	A-6333-7 RFT RMS RMR	7447
7590	02-10-2003	ROBIN M. SILVA, ESO.	DORSY & WHITNEY LLP	FOUR EMBARCADERO CENTER SUITE 3400 SAN FRANCISCO, CA 94111-4187
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